

## IN THE SPECIFICATION

Please replace paragraph [0009] with the following amended paragraph:

**[0009]** The prior art target assembly **110** includes a target chamber **104** encased in silver and having cooling channels **102, 104, 102', 202, 204, 302, 304** along the outside surface of the target assembly **110**. Typically, cooling water flows into the channel **104-102'** on the bottom of the target assembly **110**, through the channels **302, 304** along the circumference of the target assembly **110** and the channels **202, 204** along the rear surface **212** of the target assembly **110**, and collecting in the channel **102** on the top of the target assembly **110**, where it is removed and run through a heat exchanger to remove the collected heat. The channels **302, 304** are formed between the fins **306, 308** positioned around the circumference of the target assembly **110**. In the illustrated prior art target assembly **110**, the first fin **306** is separated from the other fins **308** by a larger gap, or channel, **302** in order to allow the target assembly **110** to receive a fastener.

Please replace the Abstract with the following amended paragraph:

An apparatus for containing and cooling enriched water for the production of activated fluorine ( $^{18}\text{F}$ ). A target assembly ~~is fabricated with internal cooling channels having minimal conduction paths and high Reynolds number flows.~~ includes internal cooling channels in which developed flow of a coolant removes the heat from the target liquid in the target chamber. In one embodiment, the target assembly is fabricated of tantalum, ~~which has superior oxidation resistance over silver. The superior oxidation resistance and increased cooling capacity allows for high beam currents.~~